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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,834	07/22/2003	Wolfgang Fink	50540/FLC/C766	8980

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EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,834

Applicant(s)

FINK ET AL.

Examiner

Michael J. Zanelli

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,9-12,18-21,27-30 and 34 is/are rejected.
- 7) ☒ Claim(s) 4-8,13-17,22-26 and 31-33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The application filed 7/22/03 has been examined. Claims 1-34 are pending.
2. Claims 28-34 are objected to because of the following informalities:
 - A. As per claim 28, at line 9 "planer" should be --planner--.
 - B. All claims depending from an objected base claim are also objected to as containing the same deficiencies.
3. Applicant is advised that should claim 12 be found allowable, claim 30 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

It is believed applicant intended to have claim 30 depend from claim 28, not claim 10.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 10, 11, 19, 20, 28 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Christian (4,887,223).

A. As per claims 1, 10, 19 and 28, Christian discloses a method and system for controlling one or more surface-based craft as essentially shown in Fig. 1. The system includes a tracking and command system which includes imager (1) for generating images of the operational area of the surface-based craft (21), a transceiver (19) for

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communicating with the craft, and control and navigation circuits (15,17) for generating path commands for the craft based on images obtained from the imager (1). Commands are transmitted via the transceiver to one of more of the craft within view of the imager (col. 30, lines 49-54). The control and navigation circuits as well as interface terminal (17) are computer-based devices which operate in conjunction with stored software programs to perform the above functions whereby the self-propelled craft can move autonomously or via remote control.

B. As per claims 2, 11, 20 and 29, as above whereby the location of the craft within the operating environment is determined from images and paths are generated through the environment using identified nodes (targets) (col. 30, lines 55-66).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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8. Claims 3, 9, 12, 18, 21, 27, 30 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Christian in view of Song et al. (6,597,143).

A. As per claims 3, 9, 12, 18, 21, 27, 30 and 34, Christian is applied as above whereby collision avoidance is carried out by creating a virtual window around the craft to avoid hitting any objects and/or a remote user may manually control the craft based on viewing the images at the remote terminal (17) (col. 34, lines 20+; col. 8, lines 23-28). The claimed invention differs in that collision avoidance means is provided on the craft itself using instruments (i.e., proximity sensors). However, at the time of applicant's invention it was well-known in the autonomous/remote control vehicle art to provide means on the vehicle for detecting obstacles for the purpose of collision avoidance.

B. For example, Song discloses an autonomous vehicle in which a camera is located on the vehicle and is used to detect the presence of obstacles (col. 1, lines 54-57) and to transmit the image information through a wireless communication link (col. 2, lines 18-20). One of ordinary skill in the art would have found it obvious to incorporate the teachings of Song in the system of Christian because it would have provided additional image information for detecting obstacles at ground level which may or may not be detectable in the overhead images.

9. Claims 4-8, 13-17, 22-26 and 31-33 are distinguishable over the prior art. As per claims 4, 13, 22, 23, 26 and 31, the prior art of record does not show or reasonably suggest, in combination with the other claimed subject matter, a tracking and command system/method

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which is airborne (clms. 4,13,22), such as in an aircraft (clms. 23,26,31). Dependent claims 5-8, 13-17, 24, 25, 32 and 33 are distinguishable for at least the same reasons.

10. Claims 4-8, 13-17 and 22-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. Claims 31-33 would be allowable if rewritten to overcome the objection set forth in this Office action relative to base claim 28 and to include all of the limitations of the base claim and any intervening claims.


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (703) 305-9756. The examiner can normally be reached on Monday-Thursday 5:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz


MICHAEL J. ZANELLI
PRIMARY EXAMINER